APPENDIX A

lalign output for Human T-bet SEQ ID NO:1 vs. Mouse T-bet SEQ ID

NO:3

[ISREC-Server] Date: Thu Nov 9 21:12:46 Europe/Zurich 2006

resetting matrix to DNA ./wwwtmp/lalign/.27842.1.seq : 1608 nt

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ALIGN calculates a global alignment of two sequences
 version 2.0uPlease cite: Myers and Miller, CABIOS (1989) 4:11-17
Human T-bet SEQ ID NO:1                           1608 nt vs.
Mouse T-bet SEQ ID NO:3                           1593 nt
scoring matrix: DNA, gap penalties: -14/-4
85.7% identity;        Global alignment score: 5950
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                10        20        30        40         50        60
./wwwt ATGGGCATCGTGGAGCCGGGGTTGCGGAGACATGCTGACGGGCACCGAGCCGATGCCGGGG
       ----:::::::::::::::::::::: ::::::::::::::::::: ::::::::::::::::   :
Mouse  ATGGGCATCGTGGAGCCGGGGCTGCGGAGACATGCTGACCGGCACCGAGCCGATGCC---G
                10        20        30        40        50


                70         80        90       100       110       120
./wwwt AGCGACGAGGGCCGGGCGCCTGGCGCCGACCCGCAGCACCGCTACTTCTACCCGGAGCCG
       ::  :::::::::::::: ::: :: :: :::: ::::: :: : ::::::: :: :::::::
Mouse  AGTGACGAGGGCCGGGGGCCCGGAGCGGACCAACAGCATCGTTTCTTCTATCCCGAGCCG
          60        70        80        90       100         110


               130       140       150       160       170       180
./wwwt GGCGCGCAGGACGCGGACGAGCGTCGCGGGGGCGGCAGCCTGGGGTCTCCCTACCCGGGG
       ::::: :::::: ::  ::: :: :::: ::  ::::::::::::: : ::::::: : :::
Mouse  GGCGCACAGGACCCGACCGATCGCCGCGCAGGTAGCAGCCTGGGGACGCCCTACTCTGGG
       120       130        140         150       160       170


               190       200       210       220        230       240
./wwwt GGCGCCTTGGTGCCCGCCCCGCCGAGCCGCTTCCTTGGAGCCTACGCCTACCCGCCGCGA
       ::::: ::::::: ::: :::: ::::::::::::: ::: ::::::::::::: ::
Mouse  GGCGCCCTGGTGCCTGCCGCGCCGGGTCGCTTCCTTGGATCCTTCGCCTACCCGCCCCGG
       180       190       200       210       220        230


               250       260       270       280      290       300
./wwwt CCCCAGGCGGCCGGCTTCCCCGGCGCGGGCGAGTCCTTCCCGCCGCCCGCGGACGCCGAG
       : :::: ::: ::::: ::::: : :::::: :::::::::::::::::::  :: :::
Mouse  GCTCAGGTGGCTGGCTTTCCCGGGCCTGGCGAGTTCTTCCCGCCGCCCGCGGGTGCGGAG
       240       250       260       270       280       290


               310       320       330       340       350       360
./wwwt GGCTACCAGCCGGGCGAGGGCTACGCCGCCCCCGGACCCGCGCGCCGGGCTCTACCCGGGG
       :::::::: ::: :  :: ::::::: ::::: ::::::::::: :::::::::: ::
Mouse  GGCTACCCGCCCGTGGATGGCTACCCTGCCCCTGACCCGCGCGCGGGGCTCTACCCAGGG
       300       310       320       330       340       350


               370       380       390       400       410       420
./wwwt CCGCGTGAGGACTACGCGCTACCCGCGGGACTGGAGGTGTCGGGGAAACTGAGGGTCGCG---
       ::::: ::::::::::: : :::::::: :::::::::: ::::: ::::: ::::: :::::
Mouse  CCGCGCGAGGACTACGCATTGCCCGCGGGGGTTGGAGGTGTCTGGGAAGCTGAGAGTCGCG
       360        370       380       390       400       410


               430       440       450       460       470       480
./wwwt CTCAACAACCACCTGTTGTGGTCCAAGTTTAATCAGCACCAGACAGAGATGATCATCACC
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                 :::: :::::::::::::::::::::::::: :: ::::::::::::::::::::::::
Mouse   CTCAGCAACCACCTGTTGTGGTCCAAGTTCAACCAGCACCAGACAGAGATGATCATCACT
        420       430       440       450       460       470

              490       500       510       520       530       540
./wwwt  AAGCAGGGACGGCGGATGTTCCCATTCCTGTCATTTACTGTGGCCGGGCTGGAGCCCACC
        ::::: ::::::: :::::::::::::::: :: ::: :::::::::::::::::::::::
Mouse   AAGCAAGGACGGCGAATGTTCCCATTCCTGTCCTTCACCGTGGCCGGGCTGGAGCCCACA
        480       490       500       510       520       530

              550       560       570       580       590       600
./wwwt  AGCCACTACAGGATGTTTGTGGACGTGGTCTTGGTGGACCAGCACCACTGGCGGTACCAG
        ::::: ::::::::::::::: ::::::::::::::::::::::::::::::::::::::::
Mouse   AGCCATTACAGGATGTTTGTGGATGTGGTCTTGGTGGACCAGCACCACTGGCGGTACCAG
        540       550       560       570       580       590

              610       620       630       640       650       660
./wwwt  AGCGGCAAGTGGGTGCAGTGTGGAAAGGCCGAGGGCAGCATGCCAGGAAACCGCCTGTAC
        ::::::::::::::::::::::::::::: :: :::::::::::::: :::::: : ::
Mouse   AGCGGCAAGTGGGTGCAGTGTGGAAAGGCAGAAGGCAGCATGCCAGGGAACCGCTTATAT
        600       610       620       630       640       650

              670       680       690       700       710       720
./wwwt  GTCCACCCGGACTCCCCCAACACAGGAGCGCACTGGATGCGCCAGGAAGTTTCATTTGGG
        :::::::: ::::::::::::: ::::: ::::::::::::::::::::::::::::::::
Mouse   GTCCACCCAGACTCCCCCAACACCGGAGCCCACTGGATGCGCCAGGAAGTTTCATTTGGG
        660       670       680       690       700       710

              730       740       750       760       770       780
./wwwt  AAACTAAAGCTCACAAACAACAAGGGGGCGTCCAACAATGTGACCCAGATGATTGTGCTC
        :: :::::::::: :::::::::::::: ::::::::::::::::::::::::: :: ::
Mouse   AAGCTAAAGCTCACCAACAACAAGGGGGCTTCCAACAATGTGACCCAGATGATCGTCCTG
        720       730       740       750       760       770

              790       800       810       820       830       840
./wwwt  CAGTCCCTCCATAAGTACCAGCCCCGGCTGCATATCGTTGAGGTGAACGACGGAGAGCCA
        ::::: ::::: :::::::::::::::::::::::: ::::: ::::::::: :: :::::::::
Mouse   CAGTCTCTCCACAAGTACCAGCCCCGGCTGCACATCGTGGAGGTGAATGATGGAGAGCCA
        780       790       800       810       820       830

              850       860       870       880       890       900
./wwwt  GAGGCAGCCTGCAACGCTTCCAACACGCATATCTTTACTTTCCAAGAAACCCAGTTCATT
        ::::: ::::::: ::::: ::::: :: ::::::::::::::::: ::::::::::::::
Mouse   GAGGCTGCCTGCAGTGCTTCTAACACACACGTCTTTACTTTCCAAGAGACCCAGTTCATT
        840       850       860       870       880       890

              910       920       930       940       950       960
./wwwt  GCCGTGACTGCCTACCAGAATGCCGAGATTACTCAGCTGAAAATTGATAATAACCCCTTT
        :: ::::::::::::::: :: ::::: :::::::::::::: :: :: :::::::::
Mouse   GCAGTGACTGCCTACCAGAACGCAGAGATCACTCAGCTGAAAATCGACAACAACCCCTTT
        900       910       920       930       940       950

              970       980       990      1000      1010      1020
./wwwt  GCCAAAGGATTCCGGGAGAACTTTGAGTCCATGTACACATCTGTTGACACCAGCATCCCC
        :::::::::::::::::::::::::::::::::::::: ::::::::::: :: :: :::::
Mouse   GCCAAAGGATTCCGGGAGAACTTTGAGTCCATGTACGCATCTGTTGATACGAGTGTCCCC
        960       970       980       990      1000      1010

             1030      1040      1050      1060      1070      1080
./wwwt  TCCCCGCCTGGACCCAACTGTCAATTCCTTGGGGGAGATCACTACTCTCCTCTCCTACCC
        :: :: ::::::::::::::::: :: :::::::::::::: ::: ::: ::::: ::: ::
Mouse   TCGCCACCTGGACCCAACTGTCAACTGCTTGGGGGAGACCCCTTCTCACCTCTTCTATCC
        1020      1030      1040      1050      1060      1070

             1090      1100      1110      1120      1130      1140
./wwwt  AACCAGTATCCTGTTCCCAGCCGCTTCTACCCCGACCTTCCTGGCCAGGCGAAGGATGTG
        :::::::::::::::::::: ::::::::::::::::::: :::::: : :::::: ::
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Mouse  AACCAGTATCCTGTTCGCAGCCGTTTCTACCCCGACCTTCCAGGCCAGCCCAAGGATATG
       1080      1090      1100      1110      1120      1130


              1150      1160      1170      1180      1190      1200
./wwwt GTTCCCCAGGCTTACTGGCTGGGGGCCCCCCGGGACCACAGCTATGAGGCTGAGTTTCGA
       :    :  :::  :::::::::::::  :  ::  :::::  :::::  :::::  :: :::::  :::
Mouse  ATCTCACAGCCTTACTGGCTGGGGACACCTCGGGAACACAGTTATGAAGCGGAGTTCCGA
       1140      1150      1160      1170      1180      1190


              1210      1220      1230      1240      1250      1260
./wwwt GCAGTCAGCATGAAGCCTGCATTCTTGCCCTCTGCCCCTGGGCCCACCATGTCCTACTAC
       ::  ::  :::::::::::  ::  ::  :::::::::::  :::::::  :::::  :::::::
Mouse  GCTGTGAGCATGAAGCCCACACTCCTACCCTCTGCCCCGGGGCCCACTGTGCCCTACTAC
       1200      1210      1220      1230      1240      1250


              1270      1280      1290      1300      1310      1320
./wwwt CGAGGCCAGGAGGTCCTGGCACCTGGAGCTGGCTGGCCTGTGGCACCCCAGTACCCTCCC
       ::  :::::  ::  :::::::::  :::::::::::  :::::  :::::  ::  :::::::
Mouse  CGGGGCCAAGACGTCCTGGCGCCTGGAGCTGGTTGGCCCGTGGCCCCTCAATACCCGCCC
       1260      1270      1280      1290      1300      1310


              1330      1340      1350      1360      1370      1380
./wwwt AAGATGGGCCCGGCCAGCTGGTTCCGCCCTATGCGGACTCTGCCCATGGAACCCGGCCCT
       ::::::  ::::  ::  :::::::::::  ::  :::::  :::::::::::::  ::  ::::
Mouse  AAGATGAGCCCAGCTGGCTGGTTCCGGCCCATGCGAACTCTGCCCATGGACCCGGGCCTG
       1320      1330      1340      1350      1360      1370


              1390      1400      1410      1420      1430      1440
./wwwt GGAGGCTCAGAGGGACGGGGACCAGAGGACCAGGGTCCCCCCTTGGTGTGGACTGAGATT
       :::    :::::::::  ::  :::   :                :::::::  :  :::::  :::::   :
Mouse  GGATCCTCAGAGGAACAGGGCTCCT-----------CCCCCTCGCTGTGGCCTGAGGTC
       1380      1390      1400                    1410      1420


              1450      1460      1470      1480      1490      1500
./wwwt GCCCCCATCCGGCCGGAATCCAGTGATTCAGGACTGGGCGAAGGAGACTCTAAGAGGAGG
       ::  ::  :::  ::::::     ::::  ::  :::::::::  :::::::::::::::  :::::::::::::
Mouse  ACCTCCCTCCAGCCGGAGCCCAGCGACTCAGGACTAGGCGAAGGAGACACTAAGAGGAGG
       1430      1440      1450      1460      1470      1480


              1510      1520      1530      1540      1550      1560
./wwwt CGCGTGTCCCCCTATCCTTCCAGTGGTGACAGCTCCTCCCCTGCTGGGGCCCCTTCTCCT
       :    :  ::::::::::::::::::::::::  ::::::::::::::  ::  :::::::::::::::::::
Mouse  AGGATATCCCCCTATCCTTCCAGTGGCGACAGCTCCTCTCCCGCTGGGGCCCCTTCTCCT
       1490      1500      1510      1520      1530      1540


              1570      1580      1590      1600
./wwwt TTTGATAAGGAAGCTGAAGGACAGTTTTATAACTATTTTCCCAACTGA
       ::::::::::::  :  :::::  :::::::::::  ::::::::::::::::::
Mouse  TTTGATAAGGAAACCGAAGGCCAGTTTTATAATTATTTTCCCAACTGA
       1550      1560      1570      1580      1590
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